



US008377125B2

(12) **United States Patent**  
**Kellan**

(10) **Patent No.:** **US 8,377,125 B2**  
(45) **Date of Patent:** **Feb. 19, 2013**

(54) **INTRAOCULAR LENS WITH  
ACCOMMODATION**

(75) Inventor: **Robert E. Kellan**, Andover, MA (US)

(73) Assignee: **Anew Optics, Inc.**, Newton Centre, MA  
(US)

(\*) Notice: Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 240 days.

(21) Appl. No.: **11/398,412**

(22) Filed: **Apr. 5, 2006**

(65) **Prior Publication Data**

US 2007/0239274 A1 Oct. 11, 2007

(51) **Int. Cl.**  
**A61F 2/16** (2006.01)

(52) **U.S. Cl.** ..... **623/6.43**

(58) **Field of Classification Search** ..... 623/4.1,  
623/6.11, 6.37–6.44, 6.46, 6.51, 6.52–6.54  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

3,673,616 A	7/1972	Fedorov et al.
3,866,249 A	2/1975	Flom
3,906,551 A	9/1975	Otter
3,913,148 A	10/1975	Potthast
3,975,779 A	8/1976	Richards et al.
4,014,049 A	3/1977	Richards et al.
4,053,953 A	10/1977	Flom et al. .... 623/6.38
4,073,014 A	2/1978	Poler
4,087,866 A	5/1978	Choyce et al.
4,092,743 A	6/1978	Kelman
4,102,567 A	7/1978	Cuffe et al.
4,136,406 A	1/1979	Norris
4,141,973 A	2/1979	Balazs
4,159,546 A	7/1979	Shearing

4,173,281 A	11/1979	Trought
4,174,543 A	11/1979	Kelman
4,190,049 A	2/1980	Hager et al.
4,198,980 A	4/1980	Clark
4,215,440 A	8/1980	Worst
4,240,163 A	12/1980	Galin
4,242,760 A	1/1981	Rainin
4,244,060 A	1/1981	Hoffer

(Continued)

**FOREIGN PATENT DOCUMENTS**

CN	1713862	12/2005
DE	2556665	6/1977

(Continued)

**OTHER PUBLICATIONS**

PCT Search Report for PCT/US2009/065955 dated May 31, 2011.

(Continued)

*Primary Examiner* — William H. Matthews

(74) *Attorney, Agent, or Firm* — Remenick PLLC

(57) **ABSTRACT**

An intraocular lens (IOL) assembly for correcting myopia, hyperopia and astigmatism is provided. The intraocular lens assembly comprises a lens extending along an optical axis between an anterior optical surface and a posterior optical surface. The IOL has a circumferential edge disposed about the optical axis at a junction of anterior and posterior optical surfaces with N haptics, where N is an integer greater than 1. Each haptic extends from an associated portion of the circumferential edge and along an associated haptic axis and extends between end portions joined to the lens at the circumferential edge. Each of the haptics includes M footplates extending symmetrically about its associated haptic axis, where M may be an integer greater than 0. The resultant vaulted structure provides an intraocular lens assembly that, when implanted in the eye, allows accommodation.

**19 Claims, 7 Drawing Sheets**

